**R packages**

Closed chamber measurements

*Flux* – https://cran.r-project.org/web/packages/flux/flux.pdf

* Input variables: time, volume, area, air temperature, air pressure, concentration
* Obtain fluxes and quality checks for high frequency data
* Chop function to combine files containing times and measurements
* Modelling of GPP and Reco and their interpolation uncertainties
* Combine flux dataset with environmental dataset

*HMR­* – https://cran.r-project.org/web/packages/HMR/HMR.pdf

* Input variables: series, chamber volume, chamber area, time, concentration
* Functions: non-linear regression, linear regression, no flux
* Visual output of model fit possible
* Only one function (obtaining fluxes)
* Seems to be more suitable for low-frequent data (syringes)
* Needs pre-chopped data

*Gasfluxes* – https://cran.r-project.org/web/packages/gasfluxes/gasfluxes.pdf

* Uses HMR function
* Still needs pre-chopping into series
* Functions: as HMR, additional types – robust linear, NDFE
* *Flux* seems to be the most complete package with useful additional functions, most efficient data processing and reliable calculation (e.g. inclusion of temperature). Also very well documented and made by colleagues investigating similar systems. Investigate functions and compare with excel macro – additional functions needed?

High-frequent sensors

Useful: script that combines logger data with gas flux raw output.

Eddy covariance